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PATENT SPECIFICATION

954,417

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COMPLETE SPECIFICATION

DRAWINGS ATTACHED

Improvements relating to Loose Leaf Binders

WE, BENSONS TOOL WORKS LIMITED, a British Company of Port Mills, Brimscombe, Stroud, in the County of Gloucester, do hereby declare the invention for which we pray that a Patent may be granted to us and the method by which it is to be performed to be particularly described in and by the following statement:—

This invention relates to loose-leaf binders of the type having a plurality of spaced apart prongs which engage holes in the edges of papers to be filed, said prongs comprising two sets of curved prongs which can be opened and closed so that in the open position papers can be placed on or taken off the prongs and then when closed the prongs form rings to hold the papers in position, the prongs being mounted on two opposed plates or the like contained in a channel section mounting plate or housing.

Such a channel section mounting plate has hitherto been secured to the spine of a cover by riveting, the ends of the mounting plate having been flattened and rivets applied at these positions and also a rivet or rivets having been applied at one or more positions intermediate the ends, where the mounting plate is not flattened at all. In such a construction of binder, it has been necessary to use two sizes of rivet, one size for riveting the ends of the mounting plate and another longer rivet for use at the one or more intermediate positions where the mounting plate is riveted.

It is the object of the present invention to provide an improved construction of loose-leaf binder of the type specified which will simplify the securing of the mounting plate to the cover and make it possible to use one size of rivet at the end and intermediate positions of the mounting plate.

According to the present invention there

is provided a loose-leaf binder of the type specified wherein the ends of the mounting plate are provided with flattened parts where it is to be riveted to the spine of a cover, and a hole at one or more intermediate positions where it is also to be riveted to the spine of the cover, the or each hole being provided with an eyelet in the form of a cup-shaped member having at one end an external flange to engage the rim of the hole and at the other end an aperture in the base of the cup for the reception of a rivet, the base of the cup being in the same plane as the flattened parts of the mounting plate.

Preferably the or each hole in the mounting plate is circular and the or each eyelet is also circular when viewed in plan.

One embodiment of a loose-leaf binder constructed in accordance with the invention will now be described in more detail with reference to the accompanying drawings wherein:—

Figure 1 is a plan view of the loose-leaf binder.

Figure 2 is a view taken on the line 2-2 of Figure 1.

Figure 3 is a view taken on the line 3-3 of Figure 1 and

Figure 4 is an enlarged perspective view of the cup-shaped member and the hole in the mounting plate within which it engages.

In this construction a mounting plate 10 is provided which is of a length such that it requires riveting to the spine of the binder cover at both ends and also at a centre position intermediate the ends.

The mounting plate 10 is of generally channel cross-section and may have a section which is substantially 'C' or part-circular and it is applied to the spine of a cover (not shown) with its open side engaging the spine. The space underneath the

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COMPLETE SPECIFICATION

This drawing is a reproduction of the Original on a reduced scale.

FIG. 1.

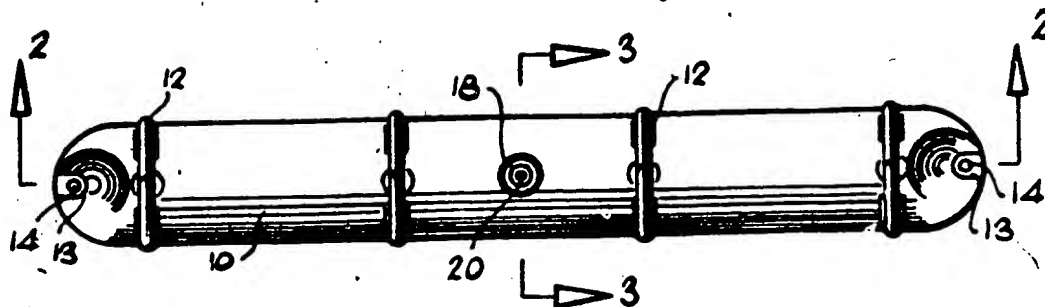


FIG. 2.

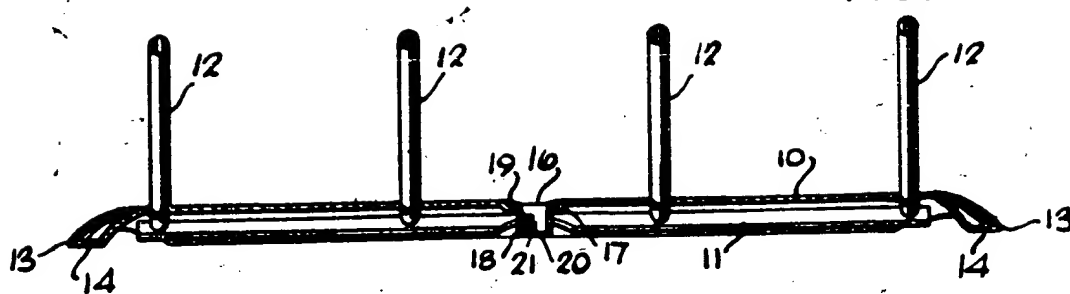


FIG. 3.

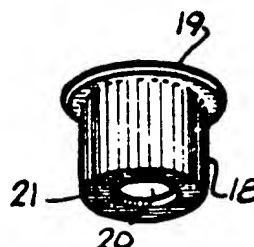
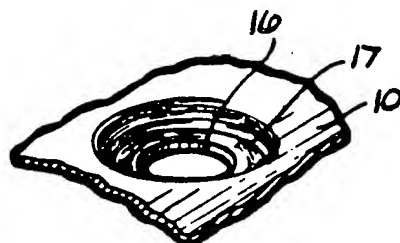
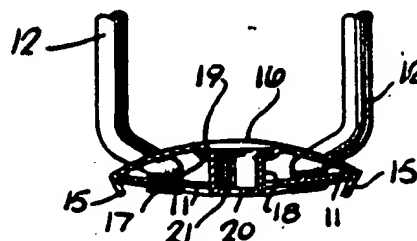


FIG. 4.

mounting plate and in between the mounting plate and the spine is occupied by the usual plates 11 or the like upon which the prongs 12 are mounted and the prongs 12 project in the usual way through holes in the mounting plate 10.

At each end, the mounting plate 10 is flattened to form a substantially flat lug 13 which is provided with an aperture 14 so that a rivet can be passed through the lug at each end of the mounting plate to secure it to the spine of the cover and the two lugs 13 lie in a common plane which is coincident with the plane containing the lower edges 15 of the mounting plate 10.

At its centre, the mounting plate 10 is provided with a circular plunged hole 16 which has a rim or lip 17 inclined downwards and inwardly towards the spine of the cover and there is provided for fitting in this hole a loose eyelet 18 which is generally in the form of a cup, being circular in plan view.

The cup-shaped eyelet 18 has one end turned over and outwardly to provide a flange or lip 19 and at the other end the base of the cup-shaped eyelet is provided with a central aperture 20 which is surrounded by an internal lip 21 so that a rivet can be passed through this end of the eyelet for the purpose of securing it to the spine of the cover.

The external configuration of the eyelet 18 is such that it tapers very slightly from the end having the external flange or lip 19 to the other end having the internal lip 21 and when it is inserted in the hole 16 in the mounting plate 10 it passes through until its external lip or flange 19 seats in the rim 17 of the hole 16 in the mounting plate 10. The length of the eyelet is chosen so that when this position is reached, the apertured base end i.e. the internal lip 21, of the eyelet is lying in the same

plane as the apertured lugs 13 at the ends of the mounting plate. Thus with this arrangement, the same size of rivet which is used in the lugs at the ends of the mounting plate, can be used in the base of the eyelet to secure this to the spine of the cover and simultaneously secure the centre portion of the mounting plate to the spine.

WHAT WE CLAIM IS:—

1. A loose-leaf binder of the type specified wherein the ends of the mounting plate are provided with flattened parts where it is to be riveted to the spine of a cover, and a hole at one or more intermediate positions where it is also to be riveted to the spine of the cover, the or each hole being provided with an eyelet in the form of a cup-shaped member having at one end an external flange to engage the rim of the hole and at the other end an aperture in the base of the cup for the reception of a rivet, the base of the cup being in the same plane as the flattened parts of the mounting plate.

2. A loose-leaf binder according to Claim 1 wherein the or each hole in the mounting plate is circular and the or each eyelet is also circular when viewed in plan.

3. A loose-leaf binder of the type specified constructed substantially as hereinbefore described with reference to and as shown in the accompanying drawings.

4. A loose-leaf binder as claimed in Claim 3 when riveted to a cover.

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